

# Lichen sclerosis and acute urinary obstruction

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## Abstract

**A case of acute urinary obstruction due to early lichen sclerosis disease is described. In this case both histological corroboration and efficacy of potent topical steroid have been beneficial.**

## Case report

A 28 year old farm worker presented with a rash on his glans penis accompanied by an inability to pass urine. The obstruction had gradually worsened over the previous weeks and became complete at presentation. At the onset, this was accompanied by the appearance of a dark red blister. There was no history of trauma. He remained well otherwise. On examination a haemorrhagic bulla within a beefy red rash of 2 cm diameter was identified. Careful examination did not reveal the external os of the urethral meatus (fig 1). A differential diagnosis of lichen sclerosis et atrophicus (lichen sclerosis), gangrene and vasculitic lesions was considered and a biopsy was carried out from the affected tissue. Other investigations included treponemal, chlamydial and herpes simplex serology, blood counts, ESR, autoantibodies, serum folate and

B12 levels. All the blood tests were reported as either negative or normal.

Histology of the affected area revealed evidence of lichen sclerosis in its active phase. Changes noted included a normal epidermis with subepidermal oedema, along with early and patchy hyalinisation of juxtaepidermal dermis. There were bands of lymphocytic infiltration adjoining the hyalinised dermis (fig 2).

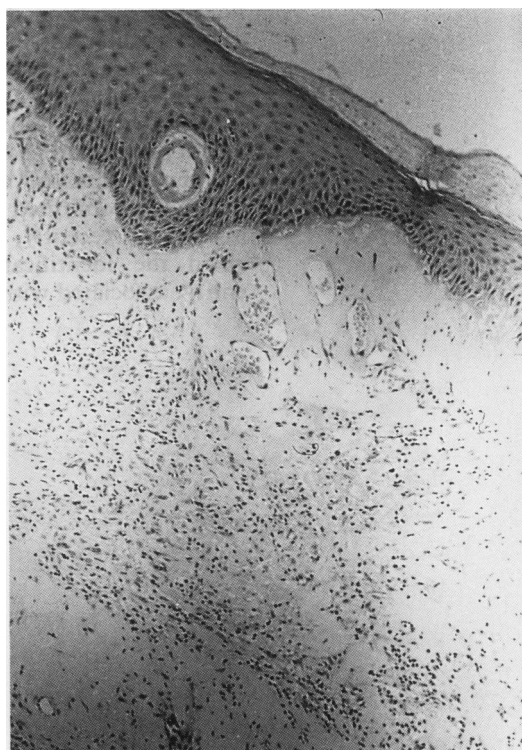
Treatment was commenced with betamethasone valerate 0.1% cream as topical applications. Considerable improvement was noticed after two weeks and the treatment was extended over four weeks. His mechanical obstruction was relieved by regular meatal dilatations. After six weeks of topical therapy, an almost complete clearance of the rash was noted (fig 3). Following treatment, his meatal orifice was clearly discernible and he needed fewer dilatations to keep a good urinary flow.

## Discussion

Lichen sclerosis et atrophicus is seen regularly in both sexes in genitourinary clinical practice. However, most presentations occur as late manifestations of the atrophic



**Figure 1** Early and acute presentation of lichen sclerosis.



**Figure 2** Histology showing early changes.

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Figure 3 Post-treatment appearance.



and scarring phases of the disease.<sup>1</sup> In males, when obstruction to urine flow sets in, it is usually due to the ensuing atrophy (balanitis xerotica obliterans). The disease will have been present for a considerable period before mechanical obstruction results. We report here a case where the presentation was both acute and unusual. The uncommon presentation with haemorrhagic bullae had been described in the past.<sup>2</sup> The preputial skin and mucosa were entirely spared in this case. His presentation with acute obstruction to urine flow has not been documented before. Histology enabled the diagnosis to be made so as to initiate treatment. The value of histology in genital dermatoses cannot be overstressed. A number of common conditions including lichen planus and psoriasis may be confined to the genital skin and mucosa. Diagnosis could be readily confirmed through histology when necessary. Recently, genital skin biopsy enabled the identification of a new clinical entity, associated with human papilloma virus

infection.<sup>3</sup> The clearance of the rash with a short course of potent topical steroid application is worth noting. However, caution is necessary while using potent steroids on genital skin and mucosa. Response to both topical corticosteroids and testosterone has been well documented.<sup>4-6</sup> The acute onset of this condition combined with the inflammatory response depicted in the histology lend support to the efficacy of treatment with steroids. Further, in a previously described case of lichen sclerosus et atrophicus with haemorrhagic bullae affecting most areas of the skin, ACTH was found to be effective.<sup>2</sup> Histology is the key to success in the treatment of lichen sclerosus et atrophicus. By defining the "age" of the lesion and the degree of inflammation it may guide the physician towards the required strength and duration of treatment. Squamous carcinoma, albeit a late manifestation and commoner in females with lichen sclerosus et atrophicus, also occurs in males.<sup>7</sup> In this case there were neither clinical markers nor immunochemical markers supporting concurrent autoimmune disease. Although the natural history and effectiveness of therapy are variable in lichen sclerosus, it is suggested that the speed of diagnosis enabled by the acute presentation owing to urinary obstruction, and the close monitoring of the treatment have been beneficial in this case. Such intervention may alter the outcome of the disease process in lichen sclerosus et atrophicus.

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